IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

ROBERT JACKSON, et al.	)	
	)	
Plaintiffs,	)	
	)	
v.	)	C. A. No. 06-300-SLR
	)	
CARL DANBERG, et al.,	)	
	)	
Defendants.	)	

DEFENDANTS' STATEMENT OF THE ISSUES

Defendants submit this statement as their submission pursuant to the Court's May 19, 2008 Order (D.I. 87). This is a 42 U.S.C. § 1983 action seeking injunctive and declaratory relief under the Eight Amendment regarding the State of Delaware lethal injection protocol.

This matter was commenced on May 8, 2006, and on September 25, 2007, after discovery was completed, the Court entered an order postponing the previously scheduled trial in light of the United States Supreme Court's grant of *certiorari* in *Baze v. Rees*. (D.I. 80). The United State Supreme Court decided *Baze v. Rees*, __U.S. __, 128 S.Ct. 1520 (2008) on April 16, 2008. Thereafter, the Court convened a status hearing on May 14, 2008, to "address the specific procedures that have been employed by the Department of Correction for death by lethal injection in light of the Supreme Court's opinion" in *Baze v. Rees*.

(1) The issues to be considered:

If the Delaware lethal injection protocol is substantially similar to the Kentucky protocol reviewed by the *Baze* Court (Exhibit B), it fully complies with the Constitution. This is an issue of law, not of fact.

(a) Plaintiffs' allegations

Plaintiffs allege that the Delaware lethal injection protocol violates the Eighth Amendment (through the Fourteenth Amendment) to the United States Constitution; that Defendants have failed to establish a protocol setting forth dosage and administration of chemicals; that the use of pancuronium bromide serves no legitimate purpose; and that Defendants fail to use credentialed and trained personnel in proximity to the condemned at execution. Complaint at ¶¶ 52-55. (D.I. 2).

The Eighth Amendment to the United States Constitution provides that no "cruel and unusual punishments" shall be inflicted. Capital punishment, however, is constitutional. *Baze*, 128 U.S. at 1529 (citing *Gregg v. Georgia*, 428 U.S. 153,177 (1976)). "Punishments are cruel when they involve torture or a lingering death . . . . It implies there something inhuman and barbarous, something more than the mere extinguishment of life." *In re Kemmler*, 136 U.S. 436, 447 (1890). In considering whether a risk of harm can qualify as cruel and unusual punishment, "the conditions presenting the risk must be '*sure or very likely* to cause serious illness and needless suffering,' and give rise to 'sufficiently *imminent* dangers.'" *Baze*, 128 S.Ct. at 1530-31 (quoting *Helling v. McKinney*, 509 U.S. 25,

33, 34-35 (1993) (emphasis added in *Baze*)). To prevail on a claim that the risk of harm violates the Eighth Amendment, a plaintiff must demonstrate a "substantial" and "objectively intolerable risk" of harm. *Baze*, 128 S.Ct. at 1531 (quoting *Farmer v. Brennan*, 511 U.S. 825, 842, 846 (1994) (internal quotations omitted)). Indeed, the condemned prisoner must demonstrate that the procedure at issue is "cruelly inhumane." *Id.* at 1533 (quoting *Gregg*, 428 U.S. at 175 (internal quotations omitted)).

Further, the *Baze* Court specifically stated the following:

> A stay of execution may not be granted on the grounds such as those asserted here unless the condemned prisoner establishes that the State's lethal injection protocol creates a demonstrated risk of severe pain. He must show that the risk is substantial when compared to the known and available alternatives. **A State with a lethal injection protocol substantially similar to the protocol we uphold today would not create a risk that meets this standard.**

128 S.Ct. at 1537 (emphasis added). It follows that if the Delaware lethal injection protocol is substantially similar[1] to the Kentucky protocol reviewed by the Supreme Court, the Delaware protocol must perforce fully comply with the Constitution and, consequently, the present stay is unwarranted and Defendants would be entitled to judgment.[2]

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[1] A lethal injection protocol that is not substantially similar to the Kentucky protocol could nevertheless be constitutional if it met the other requirements in *Baze*.

[2] Three states have carried out executions by lethal injection since the Supreme Court's decision in *Baze*: Georgia (William Lynd, 5/6/08, and Curtis Osborne, 6/4/08); Mississippi (Earl Berry, 5/21/08); and Virginia (Kevin Green, 5/27/08).

(b) The Delaware protocol compared to the Kentucky protocol

Defendants submit that the comparison between the protocols is a question of law, not of fact. Delaware's lethal injection protocol is effectively identical to Kentucky's.[3] In fact, the Delaware protocol provides even more safeguards than the Kentucky protocol. Delaware uses essentially the same three-drug protocol, including the same amount of the fast-acting barbiturate (3 grams of sodium pentothal[4]). [Delaware Protocol, Exhibit A at Bate Stamp Nos. 2535, 2537] The Delaware protocol, unlike Kentucky's, provides that the mixing of all chemicals be performed by qualified and trained personnel. [Exhibit A at 2529] Delaware's lethal injection protocol similarly requires the employment of qualified personnel for the insertion of the IV catheters and also for the actual administration of the chemicals. [Exhibit A at 2533, 2535] The personnel must participate in several on-site training exercises prior to a scheduled execution. [Exhibit A at 2529] Like Kentucky, Delaware requires that two sets of lines and two separate sets of chemicals in syringes be prepared for use at any execution. [Exhibit A at 2531] Not only are two sets of syringes prepared, the sets are color-coded, numbered,

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The following additional states have executions scheduled: South Carolina, Texas, Oklahoma, Florida, Nevada, Illinois, Louisiana, Arkansas, and South Dakota.

[3] For purposes of clarity, Defendants have attached a summary comparison of the two protocols. [Exhibit C]

[4] It is undisputed in the present matter that the initial administration of 3 grams of sodium pentothal would render a person unconscious within one minute and unable to feel the effects of any later administered chemicals, thereby foreclosing any suggestion that the procedure is inhumane. [(Plaintiffs' experts) Dr. Katz Tr. at 29-30, Exhibit E; Dr. Heath Tr. at 55, 116, Exhibit F; (Defendants' expert) Dr. Dershwitz Trial Tr. at 10, Exhibit G].

and labeled to avoid any potential confusion. [Exhibit A at 2531] And, like Kentucky, the warden and deputy warden remain in the execution chamber with the condemned, both of whom stand in close proximity to the condemned. In Kentucky, the warden checks for consciousness after one minute, while in Delaware a full two minutes pass after the administration of the sodium pentathol to ensure that the barbiturate has had ample time to act. [Exhibit A at 2535] In addition to the presence in the execution chamber of the warden and deputy warden, Delaware has also installed a pan-tilt-zoom camera to allow members of the IV team to remotely monitor the catheters, IV lines and the facial movements of the condemned before and during the execution. [Exhibit A at 2534] Thus, Delaware's written lethal injection protocol is substantively similar to, and actually provides more safeguards than, the Kentucky protocol determined to be acceptable by the United States Supreme Court in *Baze*. And as a result, Delaware's protocol is constitutional as a matter of law.

(c) Plaintiffs have not proposed an alternative method of execution

Plaintiffs have not proposed any alternative method of execution that would significantly reduce their claimed unnecessary risk that the condemned prisoner would suffer. Plaintiffs' lawyers have expressly stated that "ethical considerations prevent class counsel from suggesting acceptable, i.e. constitutional methods for executing their clients." [Plaintiffs' response to interrogatories at 8 (Exhibit D)]. While Plaintiffs have not proposed an alternative method of lethal injection, in response to an interrogatory they have suggested modifications to the Delaware

protocol by stating:

> The [Delaware] execution process may be made to comport with the Eighth Amendment by coming into compliance with the American Veterinary Medical Association ("AVMA") standards for euthanasia of animals. Similarly, the execution process may be made to comport with the Eighth Amendment if a properly trained, licensed, and experienced anesthesiologist induces and monitors anesthesia and supervises the execution.

Id at 9. The Supreme Court clearly rejected similar attempts to engraft animal euthanasia standards to the execution of humans. 128 S.Ct. at 1536 ("veterinary practice for animals is not an appropriate guide to humane practices for humans"). In doing so, the Supreme Court recognized that The Netherlands, where human euthanasia is legal, recommends the use of a muscle relaxant such as pancuronium bromide in addition to sodium pentothal to prevent a prolonged, undignified death. *Id.* at 1535. The Supreme Court also described the asserted need for the participation of an anesthesiologist as "nothing more than an argument against the entire procedure." *Id.* at 1536. The Court specifically held that "a condemned prisoner cannot successfully challenge a State's method of execution merely by showing a slightly or marginally safer alternative." *Id.* at 1531. Thus, the Supreme Court has already rejected the two suggested modifications offered by Plaintiffs in the present litigation, and this Court need not consider them.

(2) The witnesses/experts to be presented:

The May 19, 2008 Order directs the parties to detail the witnesses, including experts, who would be called at a hearing if scheduled in this matter. At the May 14, 2008 status conference, Defendants requested leave to file for

summary judgment which the Court denied, indicating its preference to convene an evidentiary hearing.

The difficulty with the Court's direction is that, in effect, the parties will be presenting evidence on whether the Supreme Court's decision in *Baze* is correct. The expert testimony that the *Baze* Court relied on is essentially the same as in this case. In fact, both Dr. Heath (Plaintiffs' expert) and Dr. Dershwitz (Defendants' expert) testified in Kentucky regarding the three-drug protocol. *See Baze v. Rees*, 2005 WL 5865359 (Ky. Cir. Ct. Apr. 20, 2005) (Transcript of Mark John Sherman Heath); *Baze v. Rees*, 2005 WL 5846920 (Ky. Cir. Ct. May 2, 2005) (Transcript of Mark Dershwitz). In that case, the two experts agreed (as they do in this case) that if the sodium pentathol were properly administered, the death would not be inhumane. *See Baze*, 128 S.Ct. at 1530; Heath Tr. at 55, 116 (Exhibit F); Dershwitz Trial. Tr. at 10 (Exhibit G). Further, the parties are precluded from calling experts to opine as to whether Delaware's protocol is substantially similar to Kentucky's protocol. *See Coca-Cola Co. v. Joseph C. Wirthman Drug Co.*, 48 F.2d 743, 746 (8th Cir. 1931) ("If the differences or similarities are such as an ordinary man may observe, there is no reason why the trier of fact should not make the comparison, and, independently therefrom, reach the conclusion. . . . the determination thus made is a 'conclusion' within the meaning of the rules of evidence and, as such, is not admissible."). Because the testimony of Drs. Heath and Dershwitz is limited to the same testimony underlying the Supreme Court's holding in *Baze*, there is no evidence with which the experts can assist the Court in

making its legal determination regarding the constitutionality of Delaware's protocol. Notably, neither expert can testify as to the probability of error associated with the administration of the sodium pentathol. *See* Heath Tr. at 7-11 (Exhibit F); Dershwitz Trial Tr. at 21 (Exhibit G). Even if Plaintiffs wish to call an expert on risk analysis, the *Baze* Court rejected the notion that subjecting a prisoner to a risk of future harm, short of a "sure or very likely" risk of needless suffering, violates the Eighth Amendment. 128 S.Ct. at 1530-31. The Court cautioned courts to avoid engaging in a risk analysis. *Id.* at 1532, n.2 ("...weighing of relative risks without some measure of deference to a State's choice of execution procedures[] would involve the courts in debatable matters far exceeding their expertise."). "Simply, because an execution method may result in pain, either by accident or as an inescapable consequence of death, does not establish the sort of 'objectively intolerable risk of harm' that qualifies as cruel and unusual." 128 S.Ct. at 1531.

Moreover, testimony of prior participants in Delaware executions is not relevant to a determination of whether Delaware's protocol is substantially similar to Kentucky's protocol. The Supreme Court in *Baze* looked to the specific provisions of Kentucky's written protocol, not the curriculum vitae of each individual member of the execution team. Plaintiffs have asked for injunctive relief, not damages based on past executions. The current protocol has been

modified to add even more safeguards than were in place for prior executions.[5] Thus, testimony from former members of the IV team or Execution team would lend nothing of value to the Court's determination of the similarity of the Delaware and Kentucky protocols, or Delaware's compliance with the Eighth Amendment.

Because the Supreme Court has also found that the motivations of those drafting the protocol are also not relevant to the constitutionality of the protocol itself, there is no need for any evidence on that topic. *See Baze*, 128 S.Ct. at 1537-38 (noting that prior methods of execution "have each in turn given way to more humane methods, culminating in today's consensus on lethal injection.").

[5] Even under the old protocol, providing fewer safeguards than included in the present protocol, Plaintiffs cannot point to any evidence that a condemned suffered substantial pain during an execution in Delaware, nor that those procedures created an objectively intolerable risk of harm.

(3) The availability of witnesses/experts:

As directed by the Court, Defendants have contacted their expert witness, Dr. Mark Dershwitz, to ascertain his availability should he be required for an evidentiary hearing. Dr. Dershwitz will have one day available in August, but he will not know which day until July 15.

Respectfully submitted,

STATE OF DELAWARE
DEPARTMENT OF JUSTICE

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DATE: June 6, 2008

CERTIFICATE OF SERVICE

I hereby certify that on June 6, 2008, I electronically filed the attached *Defendants' Statement of the Issues and Exhibits* with the Clerk of Court using CM/ECF which will send notification of such filing to:

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EXHIBIT A

Delaware Execution Protocol - Attachment #1

DCC Procedure 2.7 – Execution Procedure
Attachment #1

LETHAL INJECTION

Member Selection Criteria

The Warden and Deputy Wardens of the Delaware Correctional Center are members of the Execution Team by virtue of their official positions. The Warden selects the remaining Department of Correction members and considers, at a minimum, the following criteria: length of service; ability to maintain confidentiality; maturity; willingness to participate; work performance; professionalism; staff recommendations; review of personnel files prior to selection.

Two or more members of the Execution Team shall be Emergency Medical Technicians ("EMT's") or Paramedics. These members shall be referred to as the IV team.

One member of the Execution Team shall function as the Lethal Injection Recorder. This person shall not be one of the two IV team members.

Training

All execution team members shall read the portion of the Lethal Injection Execution Procedure that pertains to their task when they become members of the execution team. Additionally, the Warden or Warden's designee shall review the Execution Procedure at least annually.

The Execution Team shall conduct a minimum of three simulations of the execution day within one month of an execution. The simulation shall include training on all activities from removal of the ISDP[1] from holding cell through pronouncement of death excluding insertion of IV lines and introduction of chemicals or saline. A Department of Correction volunteer shall play the role of the ISDP. The Warden or Warden's designee shall maintain a record of participation in training exercises by documenting both the identity and date of such training participation. Exclusive of the Warden and Deputy Wardens, identity shall be by initials only in order to protect Execution Team members from harassment.

Procurement, Storage, Accountability, and Transfer of Chemicals

A. Procurement

1. Upon receipt of an execution order from Superior Court, the Warden or Warden's designee shall check the supply of chemicals, along with the expiration dates of chemicals on hand. If it is determined that additional chemicals are needed, the Warden or designee shall obtain the necessary chemicals.

[1] Inmate Subject to Death Penalty.

B. Storage

1. The Warden or designee shall transport the chemicals from the point of procurement and place them in the secure refrigerator located in the Warden's Conference Room. Only the Warden shall have access to this refrigerator. The refrigerator is plugged into a power outlet that is supported by a generator in the event of a power outage. Pancuronium Bromide must be refrigerated at approximately 40 degrees Fahrenheit. A thermometer will be maintained inside the refrigerator for temperature verification at the time inventories are conducted.

2. All locking devices and storage containers are designed to prevent access to anyone without proper keys or result in such destruction that entry into the container is unmistakable. There is only one key to access the refrigerator. That key is issued permanently to the Warden of the Delaware Correctional Center. The Warden surrenders that key to no one other than the one member of the Execution Team designated to inventory the lethal injection chemicals and only for the limited amount of time necessary to count and check expiration dates of the lethal injection chemicals.

3. All chemical boxes and bottles have expiration dates, and all chemicals are contained in tamper-proof vessels. Chemicals that have passed their expiration dates are destroyed.

C. Accountability

1. A permanently bound ledger is maintained in the storage area that contains a record of each lethal injection chemical. An inventory of each chemical is maintained in its own section within the ledger. Any chemicals removed for use, disposal due to expiration, or any other reason shall be deducted from the inventory. Any chemical received into the storage container shall be added to the inventory.

2. Upon receipt of the lethal injection chemicals, the Warden or designee shall place the chemicals in the refrigerator and adjust the inventory ledger appropriately. Prior to placing the chemicals in the refrigerator, the expiration date and other identifying marking is recorded to ensure that each chemical is properly disposed of at the time of expiration.

3. The Warden and designee shall jointly verify all inventories of lethal injection chemicals on at least a semi-annual basis and in advance of each execution. The Warden and designee shall make appropriate entries in the ledger with the full signatures that verify the accuracy of the lethal injection chemical count.

The temperature of the refrigerator shall be checked to ensure it is approximately 40 degrees Fahrenheit.

Transfer of Chemicals to Execution Building

1. After the lethal injection chemicals are signed out on the appropriate ledger for execution purposes, the lethal injection chemicals are placed in a lock-box for transport to the execution building. The Warden's designee is responsible for the delivery of the lethal injection chemicals to the members of the IV team in the execution building.

2. In the event the lethal injection chemicals are not used and not compromised in any way, the lethal injection chemicals are returned to the locked refrigerator, re-entered on the inventory ledger, and the refrigerator secured.

Lethal Injection Chemical Set-Up and Preparation

A. Preparation

1. The Warden's designee transports the chemicals from the locked refrigerator to the Injection Room approximately three hours before an execution. The amount of chemicals and saline is sufficient to make two complete sets of syringes. One set is color-coded red and the back-up set is color-coded blue. Each syringe is numbered in the order it is to be administered and labeled with the name of its contents. Only the Warden and one member of the Execution team have a key to the Injection Room.

2. Each chemical is prepared and drawn into syringes by one member of the IV team. Another member of the IV team observes and verifies that the procedure has been carried out correctly.

3. Only one chemical and one syringe is prepared at a time. The two sets of syringes are positioned in specific holding places in two separate trays color-coded red and blue. The syringes are numbered, labeled, and placed in the order that they will be administered. One member of the IV team will perform this procedure while another member of the IV team observes and verifies that the procedure has been carried out correctly. The member of the execution team selected as the Lethal Injection Recorder shall document the preparation of each chemical on the Chemical Preparation Time Sheet.

4. Instructions for preparation of one set of syringes:

   Sodium Thiopental: Sodium Thiopental will be mixed pursuant to manufacturer's instructions. The total amount of Thiopental required is 3 grams at 2.5% concentration of the chemical for each color set. The IV team

member then draws the solution into syringes. The syringes are labeled "Sodium Thiopental #1a" and "Sodium Thiopental #1b," etc., as necessary.

Saline: The member of the IV team draws 50 mL of saline solution from the IV bag into a syringe which is labeled "Saline #2."

Pancuronium Bromide (Pavulon): A member of the IV team draws 50 mL of Pancuronium Bromide (1 mg/mL) in each of two syringes for a total dose of 100 mg. These syringes are labeled "Pancuronium Bromide #3a" and "Pancuronium Bromide #3b," respectively.

Potassium Chloride: A member of the IV team draws 50 mL of Potassium Chloride (2 mEq/mL) into each of two syringes for a total dose of 200 mEq. The syringes are labeled "Potassium Chloride #4a" and "Potassium Chloride #4b," respectively.

Saline: The member of the IV team draws 50 mL of saline solution from the IV bag into a syringe which is labeled "Saline #5."

5. The tray is placed on the workstation in the Injection Room.

6. This process shall be repeated to create a second, back-up set of syringes. The primary set will be color-coded red and the backup set will be color-coded blue.

B. Set Up

1. One (1) bag of 0.9% Sodium Chloride ("Saline") Injection USP is hung in the Injection Room. The expiration date shall be checked.

2. A Solution Set spike is inserted into the bag with the clamp turned to the off position. The drip chamber is compressed until it is approximately one-third full.

3. The port nearest the spiked end is opened.

4. Once the port is opened, an extension is inserted. If needed, extensions are added to the end of the Solution Set until it reaches the desired length.

5. Once the desired length is obtained, the line should be filled with Saline. The clamp is opened, allowing the port to fill. When the port is filled, it is clamped and capped off. The line that goes to the body continues to fill. The clamp is turned off and the line is capped.

6. The line is taped to the IV stand with the port in an easily assessable position and labeled either left or right as applicable. A corresponding label will be

attached to the end of the line identifying the line as either left or right. The remainder of the line is passed through the opening in the wall and is taped in place to keep it from being pinched closed.

7. Repeat Set Up steps 1 through 6 for the second line.

8. The Saline bag and line on the left goes to the left side of the ISDP. The left side of the ISDP is nearest the wall/window.

Insertion of a Catheter and Connected IV Lines

A. Strap Down and Location of the Vein

1. The Tie-Down team straps the ISDP to the gurney in the Execution Chamber. Members of the Tie-Down team restrain the ISDP's arms securely to the gurney. The restraints are to be secure but not so tight as to restrict blood circulation.

2. The Tie-Down team exits the execution chamber after the ISDP is in place and secure.

3. One member of the IV team enters the execution chamber with two instrument buckets. Prior to entering the execution chamber, the IV team shall have reviewed a venous access memo previously prepared regarding the ISDP. One member of the IV team remains in the Injection Room.

4. Prior to IV placement, the IV team member in the execution chamber must verify that the restraints do not adversely restrict blood flow. If a restraint needs to be adjusted, the IV team member shall inform the Warden. The Warden will direct the Tie-Down team to return and to appropriately adjust the restraint.

5. Size, location, and resilience of veins affect their desirability for infusion purposes. One IV team member inserts the first catheter into a vein on the right side of the ISDP in the anticubital *fossa* area. If a catheter cannot be successfully inserted into the anticubital area, the IV team member shall examine other locations for insertion in the following order:

    a. Forearm
    b. Wrist
    c. Back of the hand
    d. Top of the foot
    e. Ankle, lower leg, or other appropriate locations as determined by the IV team members

6. Under no circumstances shall a cut down procedure be performed to gain venous access.

B. Venipuncture and IV Lines

1. An IV team member shall:

   a. Find the best vein on the right side of the ISDP to use according the succession outlined above.
   b. Swab the area with an alcohol pad.
   c. Determine the size of the catheter to be used which is determined by the size of the vein.
   d. Insert a catheter into the vein.

2. An IV team member attaches the Solution Set line from the right Saline bag to the catheter.

3. An IV team member in the Execution Chamber signals the IV team member in the Injection Room to open the clamp on the right bag of Saline to allow a flow of Saline into the vein.

4. Members of the IV team observe the IV for indication of a well-functioning line. When the IV team is confident that there is a well-functioning line, the IV team member in the Injection Room signals that there is a successful line.

5. A member of the IV team places a transparent dressing over the catheter and secures the line in place with tape.

6. The second IV is then started on the left side of the ISDP, and the preceding steps 1-5 are repeated using the Solution Set line from the left Saline bag.

<u>Chemical Administration and IV Monitoring</u>

A. Monitoring

1. All members of the IV team monitor both catheters to ensure that there is no swelling around the catheter that could indicate that the catheter is not sufficiently inside the vein. The IV team member in the Injection Room monitors the catheters by watching the monitor in the room by means of a pan-tilt zoom camera. The IV team members observe the drip chambers in both lines to ensure a steady flow/drip into each Solution Set line. The IV team member leaves the Execution Chamber and reenters the Injection Room.

2. One of the IV team members observes the process, monitoring the catheter sites for swelling or discoloration, by observing the camera monitor and the ISDP through the window.

3. The Lethal Injection Recorder shall enter the times of the administration of the saline and chemicals on the Chemical Administration Record.

4. The IV team member selects either the left or right Solution Set line based on the flow/drip inside the drip chamber. If both lines are equal, the left line is used.

B. Chemical Administration

1. When the Warden gives the pre-arranged signal to proceed with the execution, the IV team member clamps the line near the spike. The IV team member selects the first syringe from the red tray and inserts it into the extension line.

   Drug Sequence:

   Sodium Thiopental #1a

   Sodium Thiopental #1b

   Saline #2

   The IV team member shall wait two (2) minutes after delivery of Saline #2 before delivering Pancuronium Bromide.

   Pancuronium Bromide #3a

   Pancuronium Bromide #3b

   Potassium Chloride #4a

   Potassium Chloride #4b

   Saline #5

2. The IV team member pushes on the plunger of the first syringe with a slow, steady pressure. Should there be or appear to be swelling around the catheter, or if there is resistance to the plunger, the IV team member pulls the plunger back. If the extension line starts to fill with blood, the execution may proceed. If there is no blood, the IV team member discontinues this line. In that case, the IV team member starts the process on the other line with the back-up set of syringes starting with syringe #1a (blue) and following all of Chemical Administration step 1.

3. Both IV team members observe the correct order of the syringes as one IV team member injects the chemicals and saline solution.

4. After the final saline flush has been injected, the IV team member closes the extension line with a clamp and opens the line below the spike to allow a drop of 1-2 drops per second in the drip chamber.

5. The IV team member signals to the Warden that all of the chemicals and saline solution have been administered.

DCC Procedure 2.7 – Execution Procedure
Attachment #1

CHEMICAL PREPARATION TIME SHEET

Date _____

	Time prepared
Sodium Thiopental, 3 grams (2.5% concentration) Prepared according to manufacturer's Instructions by _____.	_____
2 syringes prepared by _____ at labeled Sodium Thiopental #1a Red and Sodium Thiopental #1b Red.	_____
If necessary, 1 syringe prepared by _____ at labeled Sodium Thiopental #1c Red.	_____
Normal Saline, 50 mL	
1 syringe prepared by _____ at labeled Saline #2 Red	_____
Pancuronium bromide, 100 mg (1mg/mL) (five 10 mL Vials of 1 mg/mL in each of 2 syringes)	
2 syringes prepared by _____ at labeled Pancuronium Bromide #3a Red and Pancuronium Bromide #3b Red	_____
Potassium Chloride, 200 mEq (2 mEq/1mL) (five 10 mL vials of 20 mEq strength in each of 2 syringes)	
2 syringes prepared by _____ at labeled Potassium Chloride #4a Red and Potassium Chloride #4b Red	_____

Revised 10/02/07 - EAB

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Time prepared

Normal Saline, 50 mL

1 syringe prepared by _____ at _____
labeled Saline #5 Red

Process repeated for back-up set

Sodium Thiopental, 3 grams (2.5% concentration)
Prepared according to manufacturer's
Instructions by _____ at _____.

2 syringes prepared by _____ at _____
labeled Sodium Thiopental #1a Blue and
Sodium Thiopental #1b Blue.

If necessary, 1 syringe prepared by _____ at _____
labeled Sodium Thiopental #1c Blue.

Normal Saline, 50 mL

1 syringe prepared by _____ at _____
labeled Saline #2 Blue

Pancuronium bromide, 100 mg (1mg/mL)
(five 10 mL vials of 1 mg/mL
in each of 2 syringes)

2 syringes prepared by _____ at _____
labeled Pancuronium Bromide #3a Blue
and Pancuronium Bromide #3b Blue

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Time prepared

Potassium Chloride, 200 mEq (2mEq/mL)
(five 10 mL vials of 20 mEq strength
in each of 2 syringes)

2 syringes prepared by _____ at _____
labeled Potassium Chloride #4a Blue
and Potassium Chloride #4b Blue

Normal Saline, 50 mL

1 syringe prepared by _____ at _____
labeled Saline #5 Blue

[The "prepared by _____" should be completed by the Execution Team member functioning in the capacity of Lethal Injection Recorder, who shall only list the IV team member who prepared the syringe by his or her initials]

The sequentially numbered syringes color-coded Red shall be used to carry out the execution by lethal injection. The sequentially numbered syringes color-coded Blue shall only be used in the event that a need arises to make use of the IV line connected to the back-up arm of the ISDP.

Lethal Injection Recorder Signature: _____

DCC Procedure 2.7 – Execution Procedure
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LETHAL INJECTION CHEMICAL ADMINISTRATION RECORD

Inmate Sentenced to Death Penalty

Name: _____ SBI #_____

Date: _____

Set 1 (Red)	Chemical	Time Started
Syringe #1a	Sodium Thiopental	_____
Syringe #1b	Sodium Thiopental	_____
[Syringe #1c	Sodium Thiopental	_____]
Syringe #2	Saline	_____

TWO MINUTES MUST ELAPSE BETWEEN COMPLETION OF SYRINGE #2 AND START OF SYRINGE #3a.

Syringe #3a	Pancuronium Bromide	_____
Syringe #3b	Pancuronium Bromide	_____
Syringe #4a	Potassium Chloride	_____
Syringe #4b	Potassium Chloride	_____
Syringe #5	Saline	_____

End Time _____

Recorder Signature _____

DCC Procedure 2.7 – Execution Procedure
Attachment #1

LETHAL INJECTION CHEMICAL ADMINISTRATION RECORD

Inmate Sentenced to Death Penalty

Name: _____ SBI #_____

Date: _____

Set 2 (Blue)	Chemical	Time Started
Syringe #1a	Sodium Thiopental	_____
Syringe #1b	Sodium Thiopental	_____
[Syringe #1c	Sodium Thiopental	_____]
Syringe #2	Saline	_____

TWO MINUTES MUST ELAPSE BETWEEN COMPLETION OF SYRINGE #2 AND START OF SYRINGE #3a.

Syringe #3a	Pancuronium Bromide	_____
Syringe #3b	Pancuronium Bromide	_____
Syringe #4a	Potassium Chloride	_____
Syringe #4b	Potassium Chloride	_____
Syringe #5	Saline	_____

End Time _____

If the back-up set of chemicals were not used to complete the execution, the Recorder should write "NOT USED" and sign his/her name below

Recorder Signature _____

Revised 10/02/07 - EAB

EXHIBIT B

Kentucky Lethal Injection Protocol
(Redacted)

KENTUCKY STATE PENITENTIARY

VISITING SCHEDULE FOR DEATH ROW INMATE

PRE-EXECUTION (DEATH WATCH)

ATTORNEYS/PARALEGALS **REVISED 12/14/2004**

DAILY	[redacted] TO [redacted]	CONTACT

24-HOUR ACCESS IN EVENT OF EMERGENCIES

PERSONAL VISITORS

DAILY BY APPOINTMENT	[redacted] TO [redacted]	CONTACT
DAY OF SCHEDULED EXECUTION	[redacted] TO [redacted]	CONTACT

MINISTERS

MONDAY THROUGH FRIDAY	[redacted] TO [redacted]
INSTITUTIONAL CHAPLAIN	[redacted] TO [redacted]

NEWS MEDIA

MONDAY THROUGH FRIDAY	[redacted] TO [redacted]	CONTACT

BY SPECIAL ARRANGEMENTS ONLY

VISITATION GUIDELINES

ANY ITEM BROUGHT IN BY ATTORNEYS/PARALEGALS, MINISTERS, OR NEWS MEDIA SUCH AS, BUT NOT LIMITED TO, CASSETTES, WIRELESS MIKES, BOOKS, OR MAIL MUST BE APPROVED IN ADVANCE BY THE WARDEN. NO ITEMS WILL BE ALLOWED IN BY PERSONAL VISITORS.

1. VISITS WILL BE CONDUCTED AT A DESIGNATED LOCATION.

2. NO MORE THAN FOUR VISITORS AT A TIME.

3. THE WARDEN RESERVES THE RIGHT TO DENY ACCESS TO THE INSTITUTION, ANY VISITOR OR PERSON, HE DEEMS A RISK TO THE SECURITY OF THE INSTITUTION.

REVISED 12/14/2004

PRE-EXECUTION MEDICAL ACTIONS CHECKLIST

ACTIONS TAKEN AFTER RECEIVING EXECUTION ORDER

ACTIONS	RESPONSIBILITY	COMPLETED/DATE/TIME
1. Notify Department of Corrections [redacted] and [redacted] [redacted] of receipt of Governor's Death Warrant (immediately).	_____	_____
2. Begin a special section of condemned's medical record for all medical actions (X – 14 days).	_____	_____
3. Nurse visits and checks on the condemned each shift, seven days a week, using the special medical section to record contacts and observations (X - 14 days).	_____	_____

PRE-EXECUTION MEDICAL ACTIONS CHECKLIST
ACTIONS TAKEN AFTER RECEIVING EXECUTION ORDER

REVISED 12/14/2004

ACTIONS	RESPONSIBILITY	COMPLETED/DATE/TIME
4. [redacted] personally observes and evaluates the condemned five (5) days per week, Monday through Friday (X - 14 days).		
5. Place the [redacted]'s documentation in the permanent record immediately after personal contact.		
6. Department of Corrections [redacted] or his designee reviews and initials nursing documentation in #3 daily (X - 14 days).		
7. [redacted] reviews nursing and doctor's documentation weekly.		

PRE-EXECUTION MEDICAL ACTIONS CHECKLIST
ACTIONS TAKEN AFTER RECEIVING EXECUTION ORDER

REVISED 12/14/2004

ACTIONS	RESPONSIBILITY	COMPLETED/DATE/TIME
8. Physical examination is completed by the [redacted] or his designee no later than seven (7) days prior to execution.		
9. Place the physical in the permanent medical record upon completion.		
10. [redacted]evaluation is completed by [redacted] no later than seven (7) days prior to execution.		
11. Place the psychiatric interview and psychiatric evaluation in the permanent medical record and send copies to the Warden.		

PRE-EXECUTION MEDICAL ACTIONS CHECKLIST
ACTIONS TAKEN AFTER RECEIVING EXECUTION ORDER

REVISED 12/14/2004

ACTIONS	RESPONSIBILITY	COMPLETED/DATE/TIME
12. [redacted] or his designee personally observes and evaluates the condemned's medical condition weekly.		
13. Place the [redacted] or his designee notes in the permanent record immediately after personal contact.		
14. Notify all medical staff to immediately notify the Warden, [redacted] or designee, and [redacted] of any change in the inmate's medical or psychiatric condition.		

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THE EXECUTION
LETHAL INJECTION

REVISED 12/14/2004

SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
1. At [redacted] the Warden orders the condemned escorted to the execution chamber and strapped to the gurney.		
2. The IV team members will be the members of the execution team who site and insert the IV lines.		
3. The team enters the chamber and runs the IV lines to the condemned inmate, site and insert one (1) primary IV line and one (1) backup IV line in a location deemed suitable by the team members.		
4. The insertion site of preference shall be the following order: arms, hands, ankles and/or feet, neck.		

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SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
5. To best assure that a needle is inserted properly into a vein, the IV team members should look for the presence of blood in the valve of the sited needle.		
6. If the IV team cannot secure one (1) or more sites within one (1) hour, the Governor's Office shall be contacted by the Commissioner and a request shall be made that the execution be scheduled for a later date.		
7. The team will start a saline flow.		
8. The team will securely connect the electrodes of the cardiac monitor to the inmate and ensure the equipment is functioning.		

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SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
9. The team will then move to the hallway and stand by.		
10. The team leader will recheck all restraints and determine they are secure and so advise the Warden.		
11. The Warden will confirm that all is ready.		
12. The Warden will make one final check with the attorneys stationed outside the chamber.		
13. The Deputy Warden will open the curtain and turn on the microphone.		

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SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
14. The Warden states, "At this time we will carry out the legal execution of _____ (condemned name)."	_____	_____
15. The Warden asks the condemned if he wants to make a final statement (two (2) minutes allowed).	_____	_____
16. Upon the Warden's order to "proceed" and the microphone turned off, a designated team member will begin a rapid flow of lethal chemicals in the following order:		
1) Sodium Thiopental (3 gm.) **NOTE:** If it appears to the Warden That the condemned is not unconscious		

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SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME

within 60 seconds to his command to "proceed", the Warden shall stop the flow of Sodium Thiopental in the primary site and order that the backup IV be used with a new flow of Sodium Thiopental.

2) Saline (25 mg.)

3) Pancuronium Bromide (50 mg)

4) Saline 25 (mg)

5) Potassium Chloride (240 meq). _____ _____

17. A designated team member will begin a stopwatch once the lethal injections are complete. If the heart monitor does

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SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
not indicate a flat line after ten (10) minutes and if during that time the physician and coroner are not able to pronounce death, the Warden will order a second set of lethal chemicals to be administered (Sodium Thiopental, Pancuronium Bormide, and Potassium Chloride). This process will continue until death has occurred.		
18. A designated team member will observe the heart monitor and advise the physician of cessation of electrical activity of the heart.		

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	SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
19.	The curtains shall be drawn when the Physician and coroner enter the chamber and confirm death by checking the condemned's pulse and pupils and so advise the Warden.	_____	_____
20.	The curtain will then be opened. The Warden turns on the microphone and states: "At approximately ____ p.m. the execution of _____ was carried out in accordance with the laws of the Commonwealth of Kentucky".	_____	_____
21.	The microphone is turned off and the curtains will be drawn.	_____	_____

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	SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
22.	The witnesses are escorted out of the witness room, first the media, inmate's witnesses, and then the victim's witnesses.		
23.	The team will prepare the body for departure.		
24.	Release body per prior arrangements.		
25.	Funeral director completes death certificate.		
26.	Not more than one (1) day after execution, the Warden shall return the copy of the judgment of the court pronouncing the death sentence, of the manner, time and place of its execution.		

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SEQUENCE OF EVENTS	RESPONSIBILITY	COMPLETED/DATE/TIME
27. Close out inmate account during next business day.		
28. Contact individual designated to receive condemned's personal property for pick up of property the next business day.		
29. Compile all documents pertaining to Execution and place in inmate file.		

EXECUTION TEAM QUALIFICATIONS

1. The following people with at least one year of professional experience may be on the IV team:
   a) Certified Medical Assistant, or
   b) Phlebotomist, or
   c) Emergency Medical Technician, or
   d) Paramedic, or
   e) Military Corpsman
2. Prior to participating in an actual execution, the member of the IV team must have participated in at least two (2) practices.
3. Members of the IV team must remain certified in their profession and must fulfill any continuing education requirements in their profession.
4. The execution team shall practice at least ten (10) times during the course of one (1) calendar year.
5. Each practice shall include a complete walk through of an execution including the siting of two (2) IVs into a volunteer.
6. Execution team members, excluding IV team members, must have participated in a minimum of two (2) practices prior to participating in an actual execution.

STABALIZATION PROCEDURE AFTER THE EXECUTION HAS COMMENCED

1. In the event that a stay is issued after the execution has commenced, the execution team will stand down and medical staff on site will attempt to stabilize the condemned with the below listed equipment and personnel.

   A. The Warden will arrange for an ambulance and staff to be present on institutional property.

   B. A medical crash cart and defibrillator shall be located in the execution building.

EXHIBIT C

Comparison of Kentucky and Delaware
Lethal Injection Protocols

Comparison of Kentucky and Delaware lethal injection protocols

	Kentucky Protocol	Delaware Protocol
First chemical Dosage	Sodium thiopental 3 grams	Sodium thiopental 3 grams
Second chemical Dosage	Pancuronium bromide 25 mg	Pancuronium bromide 100 mg
Third chemical Dosage	Potassium chloride 240 mEq	Potassium chloride 200 mEq
Number of IV lines	2	2
Deliberate pause between administration of first and second chemicals	1 minute	2 minutes
Qualifications of persons who will prepare and administer the chemicals	Certified Medical Assistant Phlebotomist Emergency Medical Technician Paramedic Military Corpsman	Emergency Medical Technician Paramedic
Number of practices required for IV team members prior to Execution	2	Minimum of 3 within of the month prior execution
Quality control procedures for preparation and administration of the chemicals	Not set out in published protocol	Presence of Lethal Injection Recorder; Preparation of primary and backup set of lethal injection chemicals; Labeling of syringes by chemical name, number, and color; Chemical preparation time sheet; Chemical administration time sheet; Secure storage and transportation of chemicals
Ability of IV team to observe and monitor the condemned	One-way glass window	One-way glass window pan-tilt-zoom camera

EXHIBIT D

Excerpts from
Plaintiffs' Response to Interrogatories

injection under the civil rights laws has an obligation to propose remedies).

In view of these ethical constraints and lack of authority to compel Plaintiffs to propose remedies to the Constitutional violations identified, Plaintiffs offer the following response, with one additional caveat: since discovery is not yet complete, Plaintiffs reserve the right to modify the following responses based upon additional discovery.

The Delaware execution process may be made Constitutional by remedying the above-identified deficiencies. The execution process may be made to comport with the Eighth Amendment by coming into compliance with the American Veterinary Medical Association ("AVMA") standards for euthanasia of animals. Similarly, the execution process may be made to comport with the Eighth Amendment if a properly trained, licensed, and experienced anesthesiologist induces and monitors anesthesia and supervises the execution.

Ninth Interrogatory: For each member of the class, provide the following:

a. Weight

b. Height

c. History of IV drug use (specify when started, frequency, locations used for injection, and last instance of IV drug use)

d. Present medications used and dosages

e. Existing medical conditions.

Response: Plaintiffs object to this interrogatory as unduly burdensome and unlikely to lead to the discovery of evidence that would be admissible at trial. Plaintiffs contend that Defendants' lack a proper systemic approach to carrying out Constitutional executions. Such a proper system would allow for the Constitutional execution of all members of the Plaintiff class regardless of their

I. The failure to properly train, and subsequently to monitor the performance of, those charged with carrying out executions increases the likelihood that a condemned prisoner will not be properly anesthetized, thus leading to unnecessary and unconstitutional pain and suffering;

J. The failure to properly supervise and oversee those who are responsible for carrying out the execution increases the likelihood that a condemned prisoner will not be properly anesthetized, thus leading to unnecessary and unconstitutional pain and suffering;

K. In addition to the failure to have a licensed anesthesiologist to ensure the inducement and maintenance of anesthesia and to monitor anesthetic depth, the failure to have proper medical equipment on site to monitor and maintain the appropriate level of anesthetic depth increases the likelihood that a condemned prisoner will not be properly anesthetized, thus leading to unnecessary and unconstitutional pain and suffering;

L. The failure to insure that the lethal drugs are properly safeguarded and refrigerated increases the likelihood that a condemned prisoner will not be properly anesthetized, thus leading to unnecessary and unconstitutional pain and suffering;

M. The failure to take proper safeguards to insure that a medically appropriate amount of each chemical is injected increases the likelihood that a condemned prisoner will not be properly anesthetized, thus leading to unnecessary and unconstitutional pain and suffering;

N. The failure to have on site adequate and proper emergency medical equipment to accomplish resuscitation in the event of a judicial stay or executive reprieve demonstrates deliberate indifference to the class' rights under the Eighth Amendment.

Remedies to the Unconstitutional Aspects of the Execution Process

Plaintiffs object to this portion of the interrogatory. Ethical considerations prevent class counsel from suggesting acceptable, i.e. constitutional, methods for executing their clients. Moreover, class counsel is under no legal obligation to provide suggested remedies to the constitutional infirmities identified in the Complaint and herein. See Hill v. McDonough, 126. S.Ct. 2096, 2102-03 (2006) (rejecting requirement that prisoner challenging particular aspects of lethal

EXHIBIT E

Excerpt from
Deposition of Steven M. Katz, M.D.
August 9, 2007

A. I do not.

Q. Have you ever been asked to do it or has anybody in your knowledge ever done it?

A. Not to the best of my knowledge.

Q. I take it, then, in your practice, when the patient is successfully revived after surgery, you breathe a sigh of relief and, as far as you're concerned, your job was done correctly?

A. Yeah. We do worry about side effects afterward, so I do like to follow up on people.

Q. What are those side effects from sodium pentothal?

A. Nausea, drowsiness.

Q. Are there antagonists you can give to reverse the effects of sodium pentothal?

A. No.

Q. Would a 3,000 milligram dosage be lethal on a 230-pound male with no history of intravenous drug use?

A. Given intravenously?

Q. Yes.

A. I would anticipate so.

Q. Do you anticipate it would be sufficient to induce him into a surgical plane?

A. I would anticipate so.
Q. And how long would that take?
A. I would anticipate 60 seconds.
Q. Pancuronium bromide, are you familiar with it?
A. Yes.
Q. Do you use it?
A. Yes.
Q. And what kind of cases do you use it on?
A. Longer general aesthetic procedures where the patient requires paralysis.
Q. It's considered medically acceptable to use it, is it not, correct procedure?
A. To use pancuronium? Yes.
Q. And you use it, don't you? Have you used it recently?
A. Define recently.
Q. Within the last year?
A. Yes.
Q. How is it prepared?
A. It comes in a vial prepared.
Q. Is it refrigerated?
A. Pancuronium is not refrigerated.
Q. It is not. Is sodium pentothal refrigerated?
A. After it's prepared, if it's going to be out

EXHIBIT F

Excerpts from
Deposition of Mark J. S. Heath, M.D.
September 22, 2007

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somebody approach you regarding lethal injection or did you approach them?
A. Well, as far as doing legal work, I was approached by an attorney. But I had been interested in lethal injection before I ever talked to an attorney or an attorney ever called me or anything. So I had been -- I had actually called attorneys. I was trying to find out what was going on in lethal injection, so I had called a warden's office, I had called death penalty, pro and anti-death penalty places that I found on the Web, and attorneys who I was told might know.
Q. And in all your work as an expert, it's always been in the field of anesthesiology?
A. I believe, so, yes. I can't think of a time when I wasn't.
Q. Well, do you believe you have an expertise in other areas, other than anesthesiology?
A. Well, I'll say this. I have been admitted as an expert in a study of lethal injection or the field of lethal injection or something along those lines. So, and I believe compared to all but a few people in the world, I have expertise in the study of this field. There are, I think there are only a few other

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people who have looked at it in, about as much as I have looked at this.
Q. All right. But even as an expert witness in the lethal injection area, it's always been as an anesthesiologist, correct?
A. I've always been an anesthesiologist, so I couldn't do it any other way.
Q. Well, did you ever study or do you believe you are an expert in the field of predicting error, for instance?
A. I think anesthesiologists have the ability to discuss the issues of predicting error in our own specialty. So any professional needs to know about the kinds of errors that can happen in their work area, just like you need to know about the kind of errors that lawyers can make, I need to know about the kind of errors that physicians and anesthesiologists can make.
Q. Are you able to provide an expert opinion on the probability of error?
A. In anesthesiology, in a clinical environment, or in traffic accidents?
Q. In anything, in anything.
A. I'm able to provide the kind of opinion that an

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anesthesiologist can provide about errors that can occur in the activities that we do.
Q. Can you provide expert opinion on the probability that the error will occur and when it will occur?
A. The kind of things anesthesiologists do, yes. The nature of the probability, sometimes one can put a number on it and sometimes one can't put a number on it. But I can still characterize probabilities, say something has either a 99 percent probability or a greater likelihood than not. There are different ways of characterizing probabilities, and I think all anesthesiologists should be able to do that with respect to the areas of anesthesiology practice.
Q. Can you always predict when an error will occur?
A. Could you expand on that question? In what environment?
Q. In any environment.
A. No, I can't tell you whether the space shuttle will crash or not because of an error.
Q. And can you tell me whether a particular procedure that you're acting as anesthesiologist in, if some error could occur by somebody else's part?

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Can you predict that error?
A. If nobody -- if I'm doing it by myself, then I know that nobody else could make an error, it would only be my error that could happen.
Q. But you're not the only one in the surgical theater, are you?
A. Sometimes I'm the only person doing the anesthesiology. But you're right, there's always, pretty much always doctors and nurses, surgeons, nurses, assistants and other people there.
Q. And you can't predict if one of them is going to make an error, correct?
A. All I can talk about is -- you mean in a given single case or in the totality of all their cases?
Q. Could you talk about it in a single case?
A. All one can say is that there exists a possibility of an error, and then depending on what error you're talking about and depending on who the person is and their work conditions, I may be able to come up with a more descriptive nature of what the attributes of that error rate would be.
Q. Well, do you have an error rate for yourself in anesthesiology?
A. I can't give you an exact number. It would

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require defining what an error is. But I can tell you that I do make errors. All anesthesiologists make errors. It's not -- I can tell you it's not zero and I can tell you it's not 100 percent. I don't make an error on everything I do. The great majority of things I do correctly. It's between zero and 100.

Q. And that's I guess the best you can say, correct?

A. Now you have to talk about defining, give me a definition of an error. I think it would be a mischaracterization to say that I make errors in 90 percent of the things I do or even 10 percent of the things that I do. But you just have to define now what an error is.

If I fail to look at the monitor every 30 seconds, does that count as an error or not? Some people might say it is, and some people might say it's not. And so now we have to get into definitions. If you use that definition, failure to look at the monitor every 30 seconds at some point during a case, then every case that happens in. There's times when I don't look at a monitor for more than 30 seconds in pretty much every case.

Q. Do you believe that you are an expert in human

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factors?

A. Again, all anesthesiologists I think are, would be experts in the human factors that they need to know about to do a good job as an anesthesiologist. But I'm not an expert in the overall field of human factors just from the point of view of what I've learned in this lethal injection, my studies of lethal injection where human factors are very important, and knowing what I know about what all anesthesiologists and physicians know about human factors when practicing medicine and anesthesiology.

Q. Have you ever been a party to a lawsuit?

A. Yes. Do you mean either --

Q. A plaintiff --

A. -- plaintiff or defendant?

Q. -- or defendant.

A. Yeah. I have, to my knowledge, been a defendant twice.

Q. What kind of lawsuits were they?

A. Medical malpractice lawsuits.

Q. And do you recall approximately what year?

A. I'm going to have to be approximate about both of them. One of them was in the late '90s, I would say, mid to late '90s.

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Q. And the other one?

A. And the other one I think was, I got the complaint maybe two years ago, two or three years ago.

Q. Is that one still pending?

A. Yes.

Q. And the one in the '90s, has that been resolved?

A. It was -- I'm not sure, it's dismissed with prejudice and without prejudice, I think the one that the defendant would want is with prejudice, is that correct? Dismissed with -- I was told it was the good one. I think it's dismissed with prejudice.

Q. Well, was it dismissed as a result of a court ruling or as a result of trial or as a result of a settlement?

A. I was taken off my -- I was removed from the case. I was dismissed from the case. I don't know what happened to the overall case. I think that happened before it got to the point of a court ruling or an overall settlement or anything. I think that was in the middle of things. The judge was -- the judge concluded that I had -- it was not conceivable that I had any role in whatever occurred, and so I was dismissed.

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Q. Was it a surgery case?

A. Yes.

Q. And was it a surgery that went bad?

A. No, can I --

THE WITNESS: Is it okay for me to talk about medical things that happened to other patients?

MR. WISEMAN: Well, you don't want to breach confidentiality. If you think you will, you should tell Mr. Niedzielski.

A. Okay, I'm talk in general terms.

Q. Okay.

A. It was a patient who received a viral infection as a result of a unit of blood that I transfused and there's -- nobody in the operating room was aware or could have been aware that that unit of blood was capable of transmitting a viral infection. And the judge agreed. I don't know what the judge's thinking was, but the result was that I was told by the attorney that the judge concluded that I could not have been responsible for the unrecognized infectious nature of that unit of blood, and so I was dismissed, whatever it is, with or without prejudice.

Q. What was the viral infection in the blood?

A. I'm not going to share that. It was a viral

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execution are concerning, and there are instances of low levels drawn shortly after executions. High levels drawn after executions are generally what is seen, and that's consistent, again, with some process lowering the thiopental value in the femoral vein or wherever over time.
Q. You're aware of the Delaware execution protocol 2.7?
A. Yes.
Q. You've reviewed it?
A. Yes.
Q. More times than you wanted to?
A. I can review it again if you want.
Q. No. Essentially would you just describe what the execution protocol would set out and how it would be performed?
A. In brief, the IVs are started, and the three drugs are administered with saline flush between the first two drugs, the first drug being thiopental, the second drug being pancuronium, and the third drug, chemical, is potassium.
Q. Chloride?
A. Potassium chloride.
Q. And the protocol requires how much thiopental

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to be administered?
A. Three, the current protocol, 3 grams.
Q. Is that dose sufficient to cause unconsciousness?
A. If it's effectively delivered into the circulation and perfused around the body and reaches the brain properly, that will reliably cause a very deep plane of anesthesia, the deepest of planes of anesthesia.
Q. And how long would that take from the time the solution of thiopental starts entering the bloodstream of the inmate? How long would it take him to get to that extremely deep plane?
A. Again, just like the propofol, it depends on a number of factors, including how long it takes to administer the thiopental. If we took the extreme example, which is not physically possible, but just maybe the assumption that it was given in an instant, so we're taking out the variability of the amount of time it takes to push the plunger, we're hypothesizing the impossible, an instant bolus of thiopental, like propofol, it could probably get there in 20 to 30 seconds to the brain. And it would -- given that it was given in an instant, it would produce very, very

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rapid onset of unconsciousness over a period of a couple of seconds or 10 seconds at most.
Q. Well what would you expect, how long would you expect it take to get the 3 grams of thiopental?
A. It depends on the volume that it's drawn up in, and it depends on what the protocol says. Some protocols say to give it over a period of seconds, you know, at a specified rate, and other protocols just give more general terms like, you know, gentle pressure or something like that.
So it depends on how, how the person gives it.
Q. Isn't it true that thiopental is affecting the individual as it's being injected into his system?
A. It depends on the rapidity of the injection. If one were to give the thiopental so quickly that the injection were completed before it had reached the heart, before, you know, just while it was still in the vein of the arm, then it doesn't really have much effect on the insides of veins. It wouldn't be affecting the system.
If it was given over a period of several minutes to the point where it was starting to, in everybody, reach their brain and other organs but it

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was still going into the arm, then, yes, it would. It's true sometimes, but not true other times.
Q. Well, my question is, in a normal circumstance, if you're going to give a total dose of 3 grams of thiopental, let's say it takes approximately a minute to administer that.
A. Okay.
Q. From the time you first start administering it, in other words, when the solution is first in the bloodstream --
A. Which isn't the same as the time you first start administering it, because it has to travel down the IV.
Q. I understand that. But from the time it starts into the bloodstream, how long would it take that person to be rendered unconscious?
A. If you're giving it over a minute, again, you might -- you could see unconsciousness after 25 seconds or 30 seconds. And again, it could take several minutes, it depends, if they had heart failure or dilated heart and other conditions like that.
Q. But it's clear that at the end of the administering the 3 grams of thiopental, they would be in a very deep state?

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the Delaware protocol are in fact the two they recommend be used in human euthanasia.
A. The third drug is not recommended in human euthanasia, so it makes it a very different situation, because that third drug causes, reliably causes excruciating pain in a person who's not properly anesthetized, and is also not necessary for achieving the euthanasia. And so it's being given gratuitously by the Department of Corrections, and I think that makes it into a very different circumstance than what's occurring in the Netherlands.
It's a related circumstance and it certainly -- just like one talks about, there are many aspects of lethal injection discussion that could relate to this, to the discussions we're having, that's certainly one of them. But it's a very different situation because of the administration of potassium and the fact that in euthanasia, with a physician at the bedside ensuring that it's done in a humane way, that was an articulated, primary goal, doing it in a humane way.
Q. But without any monitors or sensors.
A. I don't know what monitors or sensors are used, if any, during euthanasia in Holland.

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Q. There's none recommended.
A. I don't know what they're doing.
Q. Well, I thought your opinion suggested that we should remove the pancuronium bromide from the three-chemical protocol.
A. I think that if -- under the current conditions it's, under the current conditions it's not acceptable to use pancuronium. The drugs are being administered from a different room, not by a physician. There's nobody standing at the bedside who can properly assess whether the drugs are being properly delivered or not. There's nobody at the bedside who can assess whether the patient has been properly brought into a surgical plane of anesthesia and maintained in a surgical plane of anesthesia.
Under those conditions, it's not, would not be right to give pancuronium to a person or to an animal.
Q. Even if the venous access is achieved?
A. We never know that venous access is properly achieved until the drugs have taken their effect. Venous access was achieved in Mr. Diaz, venous access was achieved in Mr. Clark, venous access was achieved in Mr. Newton. There are many others, I could go on.

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There are many other executions where venous access was achieved but was inadequate or failed.
Q. But you agree that if the 3 grams of thiopental are administered over a minute period and there's a waiting of at least two minutes, then there's the sodium, then there is a saline flush, pancuronium is then added, that he won't feel that, there will be no suffering?
A. I agree, if the thiopental is successfully delivered into the circulation in a 3-gram dose and delivered throughout the circulation and it exerts the effects of 3 grams of thiopental on the brain, it will necessarily be humane.
Q. And if after you inject the thiopental and you do the saline flush and then you inject the pancuronium bromide, if something were to occur that you could not inject the potassium chloride, that inmate would die a humane death in any event; is that correct?
A. That thiopental went in correctly -- went in correctly, two separate words -- it went in properly, successfully and delivered through the circulation, it would not matter what happened or didn't happen, you know, once it reached his brain and rendered him into

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a surgical plane of anesthesia that's deeper than a surgical plane of anesthesia, it would not matter what happened or what didn't happen. It would be impossible for the person to perceive anything or experience anything, good or bad.
Q. And they would die as a result of that, those two medications if the third one was not given.
A. Yes. If, again, all this, as always, unless I specify otherwise, given successful delivery into the circulation of those two medicines in those doses.
MR. NIEDZIELSKI: Okay, I just need to talk to my colleagues and --
MR. WISEMAN: Would you like the room?
MR. NIEDZIELSKI: Yeah, if you wouldn't mind.
(A brief recess was taken.)
MR. NIEDZIELSKI: We are done. Thank you. No more questions.
(The deposition concluded at 12:52 p.m.)

EXHIBIT G

Excerpts from
Trial Deposition of Mark Dershwitz, M.D.
September 24, 2007

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approximately 200 to 300 milligrams is successfully delivered to the IV. And so from the time the injection begins, it will take just a few seconds for that amount to be delivered to the IV catheter, and following that, the person is expected to lose consciousness in the time it takes the circulation to travel from the arm to the brain, which is typically around 30 seconds in a normal individual.

Q. And how long based on that dosage would that inmate remain in that state?

A. Well, a person given 3,000 milligrams of thiopental, assuming that their circulation and ventilation are supported, the average person will sleep for approximately 280 minutes.

Q. Have you done a calculation to show that?

A. Yes.

Q. Would you identify that document?

A. Well, let's see. This is Exhibit 2.

Q. And would you just hold it up so -- and just explain, if you would, Doctor, what is that showing the court?

MR. WISEMAN: Could I just ask which chart he's looking at?

MR. NIEDZIELSKI: Exhibit B.

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MR. WISEMAN: Thank you.

A. Okay. This is a graph that depicts the predicted blood concentration of thiopental as a function of time in an average person of 80 kilograms in weight, who's been given 3,000 milligrams of thiopental. Both the X and the Y axes are logarithmic axes to make it easier to view.

Q. And what is the level of thiopental in the bloodstream that would cause a deep level of unconsciousness?

MR. WISEMAN: Objection to "deep."

Q. Well, would you explain what, what level would you expect to see in a surgical patient weighing 80 kilograms?

A. Well, following the administration of 3,000 milligrams, as this table that's inset into the graph shows, about five minutes after finishing the infusion, the blood concentration is predicted to be about 63 micrograms per milliliter, which corresponds to a probability of conscious of approximately .000003 percent.

Q. Now, Doctor, would you now look at the Dershwitz No. 3? And that's also marked Exhibit C; is it not?

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A. Yes.

Q. And this was attached to your report; is that correct?

A. Yes.

Q. What is that showing us?

A. This graph is essentially identical to the previous one, except that the time course on the X axis has been extended out to 200 minutes.

Q. And is that the -- does that represent what an 80-kilogram inmate, how long that person would be unconscious?

A. Well, this actually depicts the time course of the blood concentration. But after an hour, for example, the thiopental concentration has fallen to 19.7 micrograms per milliliter, and that corresponds to a probability of consciousness of approximately .029 percent.

Q. Now, that of course would assume that the inmate is being, is being ventilated, correct?

A. Yes, typically we would expect a 3-gram dose of thiopental to result in apnea, which is the cessation of ventilation. And so therefore, for the person to remain alive for that amount of time, they would need to be ventilated.

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Q. How long would an inmate be living if he were just given 3 grams of thiopental?

A. That's a difficult question to answer because in medicine we do not have a good definition of exactly when death occurs. But following the cessation of ventilation, over the next few minutes the oxygen concentration in the blood will drop, and therefore, oxygen delivery to the tissues will also drop. And since two critical tissues, the brain and heart, have essentially no significant oxygen reserves, a few minutes after the cessation of delivery of oxygen, the tissues will begin to die and the damage will be irreversible within a few minutes after that.

So a reasonable definition of death, meaning that there would be the cessation of palpable circulation, would occur in a number of minutes where that number is probably measured in single digits.

Q. So if hypothetically there was no other medications given, would this dosage of 3 grams of thiopental be lethal in itself?

A. It would typically be lethal in almost everybody. There might be some persons who could survive a 3-gram dose, and of course when we use this

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expect to see significant involuntary muscle contractions.

Pancuronium is expected to mitigate but not completely ablate those involuntary muscle contractions.

Q. Could the untrained observer to that execution protocol believe, seeing those things, that somehow the inmate was suffering?

MR. WISEMAN: Objection to what another person would believe.

A. Certainly there are witness reports that I've read where witnesses have used the term "convulsion" in describing what they saw during, during a lethal injection. And because of the fact that thiopental is actually the best anti-convulsant medication we have in medicine, the likelihood that what they were observing was actually a true convulsion, meaning to a physician a seizure, is, is minuscule. And far more likely what they were witnessing were the involuntary muscle contractions caused by potassium chloride.

Q. Doctor, do you have an opinion, within a reasonable degree of medical certainty, as to whether the protocol, the Delaware protocol, lethal injection protocol if carried out in accordance with protocol,

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whether there is a likelihood that the inmate subject to that would suffer pain or distress?

A. Yes, I do. I think that if the protocol is implemented as written, the likelihood that the inmate can suffer is negligible.

THE VIDEOGRAPHER: Going off the record at approximately 11:16 a.m.

(Discussion held off the record.)

(Dershwitz Exhibit No. 5 was marked for identification.)

MR. NIEDZIELSKI: The parties have agreed to the document, No. 5 report.

THE VIDEOGRAPHER: Back on the record at approximately 11:21 a.m.

BY MR. WISEMAN:

Q. Good morning, Doctor.

A. Good morning.

Q. A few moments ago you indicated in response to a question that which chemical precipitated didn't matter for I think you said "these purposes." And I'm wondering what you meant when you used the phrase "these purposes"?

A. If the two medications precipitate before entering the human body, either in the IV line or in

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the IV catheter, they're going to plug up the catheter and possibly make it nonfunctional. So whether you're giving the two chemicals for a lethal injection or whether you're giving the two drugs for clinical anesthesia, it's a really bad idea to have them precipitate before they enter the body.

Q. Right, I guess I was wondering more broadly what your -- what is the purpose of the lethal injection protocol in your view? Aside from accomplishing the execution of the prisoner.

A. I don't know that there is another purpose, other than causing the death of the inmate.

Q. All right. Is the causing of the death in a humane fashion a part of the purposes, as you've used the word?

A. I believe it should be.

Q. Okay. So we're in agreement then that an execution should be carried out in a humane fashion?

A. Yes.

Q. And your opinions are all taking that aspect of it, the humanity of it, into account?

A. As best as I can, although I freely admit I'm not a constitutional expert.

Q. Okay. Now, you were deposed two weeks ago, and

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I'm wondering if you've reviewed anything, and by anything, I mean any documents since that deposition relevant to this case?

A. Since that time I've reviewed the transcript of my deposition, and I reviewed Dr. Heath's expert report that was provided to me.

Q. And have you had an opportunity to view the Delaware execution facility?

A. No, I have not.

Q. Now, I want to understand as best I can what the limits of your opinion or the parameters of your opinion is in this case. Your report does not set forth for the court -- excuse me -- the totality of the risks associated with a humane execution, does it?

A. No.

Q. And in fact, there are any number of things that could go wrong that would render an execution under the Delaware protocol as inhumane; is that right?

A. Yes, those are possibilities.

Q. And so your report and your opinion assumes a successful infusion of thiopental into the circulatory system and assuming that it then gets to the prisoner's brain; is that right?